

A method of optimizing the topology of the IEEE 1394 serial bus having a plurality of nodes each with communication ports, comprises the steps of prioritizing the nodes according to the number of the ports and the transmission speed, connecting a non-used port of the node of the first priority with a port of the node of the second priority, and repeating the previous step until all of the nodes are connected together, whereby the nodes are connected through the ports according to priority order.